IN THE SPECIFICATION

Please amend the specification as follows:

[0028] It has been found that during these rapid accelerations to 10,000 rpm and the immediate braking from 10,000 rpm to zero, stresses, mechanical as well as thermal, impact on the rotor 58, target and bearing connections. These stresses may contribute to anode assembly imbalance which is believed to be the leading cause of recent x-ray tube failures. It has been determined that these imbalance problems are most likely caused by changes that occur in the areas where the target stud 72 and rotor 58 are attached to the bearing shaft.

[0034] Shrink fitting connections, such as those between axial projection of shaft 61 and rotor hub 128, may be accomplished by processes which are known to the prior art. In the selection of materials and dimensions, such as for anode assembly 100, rotor hub 128 is, for example, heated to about 400°C, and joint end 135 of shaft, which is conveniently at room temperature, is slidably received therein. Subsequently, the resulting assembly is cooled to room temperature. In the subsequent heating of this assembly as incorporated into an x-ray tube during operation of the anode assembly 100, the heating always proceeds from the anode target 1027 as a consequence of the heat flow through axial bearing shaft 61, and from shaft 61 into rotor hub 128 to rotor assembly 132. The shrink-fitting operations are thus accomplished and arranged so that permanent, tight connections are obtained through shrink-fitting which take account of the manner in which heating proceeds.

[0031] As illustrated in FIG. 5, in one embodiment, hub 128, preferably made of INCOLOY~~neoloy~~ (IN)909 or other suitable nickel-cobalt-iron alloy with high strength and a stable, or constant, coefficient of thermal expansion and constant modulus of elasticity is preferably EB welded within the rotor 58. The rotor 58 is preferably made from copper bars cast onto a steel carrier. This structure commonly has a coefficient of thermal expansion (CTE) far in excess of the bearing shaft 61. Rotor hub 128 is preferably configured to receive shaft 61 such that the composite coefficient of thermal

expansion (CTE) for rotor 58/hub 128 assembly closely matches that of shaft 61. The shaft 61 may also be made of materials such as CTX Rex 20 or other suitable hard steel.

[0036] It will be understood by one skilled in the pertinent art that an exemplary embodiment discloses a high composite CTE rotor system that is joined to a much lower CTE bearing shaft system by means of a hub in the rotor system that has a CTE much lower than that of the rotor or the bearing shaft. This causes the effective or composite CTE of the rotor to match that of the bearing shaft. The resulting joint is used to carry the torque of the rotor, which is generated to rotate the target, without the necessity for any other means of mechanical attachment (i.e., bolt, braze, weld, spline, key, and the like). Moreover, depending upon the selection of construction materials, a type of pressure welding between contacting components is commonly obtained during shrink-fitting as a result of the pressures and temperatures inherently occurring. The axial projection of the shaft and the rotor hub are thereby so securely interconnected to one another that they can no longer be separated from one another during a subsequent heating. A tight connection of this type occurs, for example when employing as a hub material INCOLOY~~ncoloy~~, and as a shaft material, such as tool steel.